
*A Critical Access Hospital Case Study*

IDAHO FLEX PROGRAM

# EVALUATION '06

SHOSHONE MEDICAL CENTER, KELLOGG, IDAHO

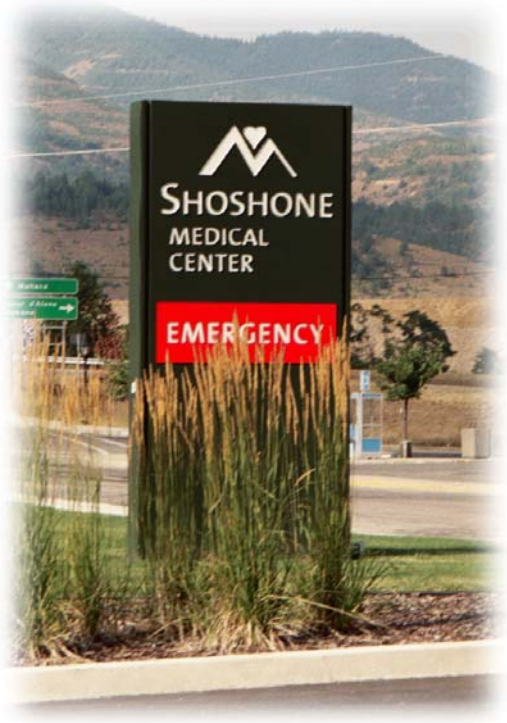
Rural Health Solutions

Real World. Results.

***Is the Medicare Rural Hospital Flexibility (Flex) Program and small rural hospitals' conversion to Critical Access Hospital (CAH) status improving the quality of care and the performance of small rural hospitals, enhancing local emergency medical services (EMS), and fostering network development? Has access to health care improved due to the Flex Program? Shoshone Medical Center, Kellogg, Idaho was highlighted in a study of these questions as part of Idaho's Flex Program and its program evaluation activities. Using this approach, the case study determined that extensive progress has been made in advancing the goals of the Flex Program. This is particularly evident in the new hospital building, changes in quality of care, changes in community member perceptions of the hospital and the care provided, and local level EMS planning. In addition, the case study identified on-going needs and issues, such as local EMS workforce issues and their impact on patient transfers.***

## A. CASE STUDY OBJECTIVES AND METHODS

The Shoshone Medical Center case study reviewed community, hospital, and other health care related changes and outcomes that have occurred due to Shoshone Medical Center's conversion to CAH status and its involvement in the Flex Program. Findings were identified using the following:




- Local health services and community background information was collected from March – August 2006 in Kellogg, Idaho.
- Interviews with hospital staff, hospital board members, and local emergency medical services (EMS) personnel took place in Kellogg in August 2006.
- Health care providers working in Shoshone Medical Center completed a health services survey in May 2006.
- Community member interviews were held in Kellogg and via telephone in August 2006 to gather feedback on health and health care services in the community, changes that have occurred to the hospital since its conversion to CAH status, and on-going needs and issues.

Twenty-one individuals from the hospital service area were included in the case study process. They were asked questions related to: the hospital's conversion to CAH status, changes that have occurred at the hospital over the past 10 years, quality of care, networking activities that have occurred, changes to EMS services, and community needs and issues.

The Idaho Department of Health and Welfare, Office of Rural Health and Primary Care, administers the Flex Program in Idaho and was the sponsor of the case study. Rural Health Solutions, St. Paul, Minnesota, conducted the case study and prepared this report.

## B. KELLOGG, IDAHO, AND THE SURROUNDING AREA


Kellogg, Idaho is located in Shoshone County in the Silver Valley of northern Idaho. The Silver Valley is a four season recreational area with mountain biking, skiing, snowmobiling, hiking, water sports, and other activities. Kellogg's largest employers include: the County, school district, Dave Smith Motors, a nationally recognized automotive dealership, Silver Mountain Ski Resort, and Shoshone Medical Center.

In 1883, commercial mining for lead, zinc, silver, and other metals began in the Silver Valley while ore processing facilities were in Kellogg and neighboring Smelterville. In May 1972, the Sunshine Mine of Kellogg was the site of one of the worst U.S. mining accidents, resulting in the deaths of 91 miners. Due to the extensive heavy metal contamination in the area, Kellogg was designated as the Bunker Hill Superfund clean-up site in 1983. Although clean-up activities are nearing completion in and around Kellogg, the area for clean-up has been expanded. Today, Kellogg is being transformed into a ski and recreation resort area, with a mining themed downtown, and claims of having the longest gondola lift in the world.


Kellogg, with its population of 2,395, is the largest city in the Silver Valley and Shoshone County. Kellogg lies along Interstate 90 about 39 miles east-southeast of Coeur d'Alene, where the closest tertiary hospital is located. Benewah Community Hospital, located in St. Maries, Idaho, and also a CAH, is the closest hospital (about 36 miles) to Shoshone Medical Center. With its mountainous terrain and proximity to Coeur d'Alene and Spokane, Kellogg is experiencing significant housing cost increases (106% from 2003 to 2005) and anticipates an increase in its seasonal population.

When asked, "What makes Kellogg a healthy place to live?", case study participants characterized the community as: slow-paced, beautiful environment, with clean air and water, with good doctors and a good hospital, community oriented, with lots of outdoor and recreation activities, and where people know one another and help one another. When asked, "What makes Kellogg an unhealthy place to live?", case study participants reported: lifestyle choices, unemployment and underemployment, smoking, obesity, mining mentality, lack of mental health services, alcohol and drug use, prescription drug abuse, lack of education/low levels of education, and lack of health insurance.

## C. SHOSHONE MEDICAL CENTER

**SHOSHONE MEDICAL CENTER'S MISSION:**
*"To provide excellence in healthcare."*

**VISION:**
*"A valley-wide healthcare system that assures the provision of quality services."*

Shoshone Medical Center, a 25-bed CAH, converted to CAH status December 12, 2000, making it the 13th hospital to convert in the state and the 294th to convert in the U.S.[1] The hospital is a district hospital and offers emergency care, general surgery, orthopedic surgery, and a variety of outpatient services. The hospital also owns a downtown clinic, wellness/fitness center, and gerontology-psychology center. The hospital administrator has worked in the hospital for 1.5 years, the Chief Financial Officer 10 years, and the Chief Nursing Officer 18 years. There are 14 physicians, 8 courtesy physicians, 11 consulting physicians, 2 physician assistants, and 100 staff (a total of 85 FTE) working at the hospital.

Shoshone Medical Center's service area population of 14,000 is poorer, more likely to be unemployed, less racially diverse, older, and less likely to have a college degree when compared to all people in Idaho.[2]

*"There was a time when I didn't want to be at Shoshone Medical Center."*

*Case Study Participant*

Ambulance services for the area are provided by Community Ambulance Services, Inc, a privately-owned Intermediate Life Support Unit located in Kellogg, and Mullan Ambulance, a Basic Life Support Unit located in Mullan. Community Ambulance Services, the primary squad serving the area, consists of 17 active EMTs (15 – Intermediate EMTs and 2 Basic EMTs) as well as 4 EMTs that are less active. The ambulance service area is approximately 700 square miles. They responded to 1,312 calls in 2005 and 32% resulted in no transport of patients.[3,4] Call volume has increased slightly over the past five years.

## D. IMPACT OF THE FLEX PROGRAM

The national Medicare Rural Hospital Flexibility Program was created as part of the federal Balanced Budget Act of 1997. Its goals are to: 1) Convert small rural hospitals to CAH status; 2) Support CAHs in maintaining and improving access to rural health care services; 3) Develop rural health networks to increase health care efficiency and effectiveness and to advance the other Flex Program goals; 4) Integrate EMS into the continuum of health care services; and 5) Improve the quality of rural health care. Shoshone Medical Center was selected for an impact analysis using a case study approach in order to examine program outcomes and the impact that the Flex Program has had on local communities.

[1] As of March 27, 2006 there are 26 CAHs in Idaho and 1279 in the U.S. Source: Flex Program Monitoring Team.

[2] Source: US Census.

[3] Source: Community Ambulance Services, Inc.

[4] No transport of patients occur when EMTs arrive to a non-emergency call and/or it is not medically necessary to transport.

Data were obtained from the Idaho Department of Health and Welfare, Office of Rural Health and Primary Care, state EMS Bureau, and the national Flex Monitoring Team, as well as case study participants. Case study participants provided information related to each of the Flex Program goals, including outcomes, accomplishments, needs, and on-going issues. Below is a status report for each goal, including goal status, indicators for success, and indicators of on-going needs and issues. Although many of the indicators cannot be directly and/or purely attributed to the activities of the Idaho Flex Program, case study participants reported that without the Flex Program, each accomplishment would have been difficult, delayed, and/or not pursued.

**GOAL:** **CONVERT HOSPITALS TO CAH STATUS**
**STATUS:** ACCOMPLISHED

## INDICATORS OF OUTCOMES ACHIEVED:

- Shoshone Medical Center converted to CAH status December 12, 2000.
- Over a 12 month period, the hospital explored the CAH conversion option, completed a financial feasibility study, worked with Flex Program supported staff at the Idaho Hospital Association and the Office of Rural Health and Primary Care, to prepare for and complete the CAH application process, and was surveyed and licensed as a CAH.
- All of the physicians reported that they supported the hospital's conversion to CAH status, including seventy-five percent that reported they "strongly supported" the conversion.
- Case study participants provided the following comments/information related to the CAH conversion process:
    - *"We were apprehensive about converting because we were afraid that we would convert and then the Feds would cut the program."*
    - *"The process went really well and we appreciated all of the support."*

"I'm not convinced this hospital would have survived without CAH status."

Case Study Participant

*"Shoshone Medical Center is now one of the premier, technically state-of-the-art, rural facilities in the U.S."*

Case Study Participant

**GOAL:** **SUPPORT CAHS IN MAINTAINING AND IMPROVING ACCESS TO HEALTH CARE SERVICES**
**STATUS:** OUTCOMES ACHIEVED/ON-GOING NEEDS

## INDICATORS OF OUTCOMES ACHIEVED:

- Prior to conversion to CAH status, the neighboring hospital closed and Shoshone Medical Center closed its long-term care and chemical dependency units and discontinued obstetrics and home health services. Since converting to CAH status they have established a swing-bed program and added cataract surgery, podiatry, ear, nose and throat, an outpatient gerontology-psychology center, diabetic education, and formalized infusion therapy.

- In January 2005, the 1957 hospital building was replaced by a 40,000 square foot, $17.5 million hospital building on the same site where the previous hospital was located. It has a fully digital radiology department and a voice activated transcription system.

- The hospital's financial performance has improved. Prior to conversion the hospital struggled making payroll, they had no cash reserves, eliminated employee benefits, and were behind on employee retirement payments. Today the hospital has a positive profit margin, approximately 100 days cash on hand, is re-establishing its benefits program, has a retirement plan and educational assistance, and wages have increased.

- The hospital has experienced a 7-9% increase in business across all patient groups.

- CareLearning.com, a program initially sponsored by the Flex Program, is used by hospital staff for training (e.g., HIPAA). This has decreased training costs, improved training requirements compliance, and improved staff satisfaction with training options.

- Workflow patterns in the hospital have changed due to the new hospital building. This has improved operations, allow them to focus on the increasing demand for outpatient services, increased overall capacity, and increased patient and staff satisfaction.

- The hospital used the Flex Program supported economic impact study for its community campaign for the new hospital, as well as its application for HUD 242 financing.

- Case study participants provided the following comments/information related to maintaining/sustaining access to health care services:

    - *"The old building was so antiquated and the infrastructure was non-existent. They didn't even make parts for the old boilers and elevators and there was a faulty water system."*

    - *"The old facility drove staff and patients away."*

    - *"Without the Flex Program, all of the changes we made would have been tough. When times get hard, you tend to isolate yourself, and Flex allowed us to reach out for assistance."*

    - *"The regional conference is good because it is helpful to hear from those outside the state. They may have better or different ideas to share."*

    - *"Being able to try new business tools, like CareLearning.com, is a huge plus."*

    - *"Recruitment [health care staff] here is fairly easy. We push quality of life and the new facility."*

    - *"We have more flexibility with our staff because they are better cross-trained."*

    - *"This hospital matches medical services with community need."*

## INDICATORS OF ON-GOING NEEDS/ISSUES:

- Health care providers report an on-going need to improve provider relations and staff retention.

- Hospital staff report a need for performance improvement standards data/information on emergency room use, improving workflow from a clinical perspective, and staffing models for clinical areas.

- Several study participants reported a need to have obstetric services "back in the valley."

- Case study participants provided the following comments/information related to maintaining/sustaining access to health care services:
    - *"We're looking at joining the Peer Review Network."*
    - *"Education opportunities are important. Therefore, we try and send as many people as possible."*
    - *"We're doing better now but we have a ways to go."*

**GOAL:** **DEVELOP RURAL HEALTH NETWORKS TO INCREASE HEALTH CARE EFFICIENCY AND EFFECTIVENESS AND TO ADVANCE THE OTHER FLEX PROGRAM GOALS**
**STATUS:** OUTCOMES ACHIEVED/ON-GOING NEEDS

**INDICATORS OF OUTCOMES ACHIEVED:**

- The hospital formalized its network relationship with Kootenai Medical Center, Coeur d'Alene, and reports the development of the Flex Program improved hospital relations and collaboration between the facilities.
- The Flex Program has supported the North Idaho Rural Health Consortium which includes five hospitals in North Idaho.
- Networking has allowed for increased knowledge in the areas of information technology, electronic medical records, staff training via video conferencing.
- Flex Grants reportedly have been used for local networking and to address community health issues.
- Case study participants provided the following comments/information related to network development:
    - *"The relationship with Kootenai has gotten a lot stronger. We used to have issues with transfers but now the process is virtually seamless."*

**INDICATORS OF ON-GOING NEEDS/ISSUES:**

- Workforce housing costs was identified as a great concern that continues to need to be addressed by the area.
- Case study participants provided the following comments/information related to network development needs:
    - *"We could do a lot more with our network up here."*

**GOAL:** **INTEGRATE EMS INTO THE CONTINUUM OF RURAL HEALTH CARE SERVICES**
**STATUS:** OUTCOMES ACHIEVED/ON-GOING NEEDS

**INDICATORS OF OUTCOMES ACHIEVED:**

- Local EMTs are trained by local emergency room physicians.
- A local EMS assessment was completed in 2002 by the Flex Program to identify community EMS needs that should be addressed. The following local activities were completed in response to assessment recommendations:

- *A local EMS advisory committee, consisting of hospital, ambulance, sheriff, law enforcement, fire districts, and dispatch staff was formed. It meets on a quarterly basis.*
- *Training needs are assessed on a regular basis.*
- *Ambulance run data were analyzed to determine the appropriate level of ambulance service needed for the area. Although a paramedic service was determined as most appropriate, the funding available does not support this level of service.*
- *Additional EMS communication equipment was purchased to enhance dispatch capabilities.*
- *The community is educated on the scope and availability of EMS services and the local hospital.*
- *A position description was developed for the EMS medical director.*
- *The local EMS council developed mass casualty triage and transfer guidelines and destination determination protocols.*
- *A quality assurance/improvement process is in place where 25% of run reports are reviewed on a random basis and 100% of intubation cases are reviewed. This results in approximately 300 files being reviewed by the EMS medical director annually.*

- Case study participants provided the following comments/information related to EMS accomplishments:
  - *"We're working better as a team."*
  - *"The EMS assessment was very helpful. Even if we have only been able to do parts of the recommendations, it provided a starting place for us to work and prioritize."*

**INDICATORS OF ON-GOING NEEDS/ISSUES:**

- Transfers from the hospital were identified as an issue in the 2002 EMS assessment and this issue has not been resolved.
- The number of EMTs serving the area has decreased from 30 active EMTs in 2002 to 17 in 2006.
- Current equipment does not meet the needs of some obese patients and the EMTs that must provide care.
- Turnover of State EMS regional consultants.
- Employers in the community are unwilling to let employees leave the worksite during work hours to volunteer on the ambulance service.
- There is no formal process to measure changes in quality of EMS provided to patients
.
- Fifty-five percent of physicians reported that the community has EMS issues while the remaining physicians reported that they did not know if there are EMS issues. Issues identified include: transfers, lack of EMTs, costs, and the difficulty of using the ambulance service.
- Recommended local EMS assessment activities that were not completed since the assessments completion in 2002 include:
  - *Pediatric specific training is available on a very limited basis*.

- *Dispatch center continues to be located in the jail in an insecure location.*
- *Injury and illness prevention programs have not been explored to address community risk factors.*
- *The EMS medical director is not compensated for the services he/she provides.*
- *No formal triage and transfer guidelines and destination determination protocols have been established for routine EMS.*
- *EMS feedback issues with outside County facilities, although they have improved, continue to need to be resolved.*
- *Quality assurance/improvement continues to need to be addressed.*

- Case study participants provided the following comments/information related to EMS needs/issues:
  - *"EMS is struggling for existence."*
  - *"We are at a loss on recruitment and retention."*
  - *"I have attended every recruitment and retention seminar that I can and none of their suggestions have worked."*
  - *"EMS is trying to resolve the transfer issue, but a solution has not been found."*
  - *"Its gotten terrible. Delays in transfers affect patient care. And sometimes patients refuse to go by helicopter which means they have to wait and wait."*
  - *"EMS is going to have to do things differently. They need to integrate better with the fire department, disaster control, and the hospital. Everyone cannot operate in a vacuum."*
  - *"Transfers out of here continue to be a big problem."*
  - *"The ambulance service's goal is to keep one team in the valley. So if we don't have back-up, we have to count on Kootenai County. That can be a long wait."*
  - *"I liked working on the ambulance service but there are only so many hours in a day."*
  - *"The younger generation cares about cash and there's no cash in EMS."*

**GOAL:** **IMPROVE THE QUALITY OF RURAL HEALTH CARE**
**STATUS:** OUTCOMES ACHIEVED/ON-GOING NEED

- Physicians (77%) and all hospital staff report that quality improvement initiatives are in place and improving quality of care.
- Physicians report that quality improvement activities have had the greatest impact on addressing specific hospital issues, staff training issues, medication errors, drug interactions, protocols, and work flow patterns.
- The hospital is in the process of implementing an electronic medical record system.

- A blame-free hospital environment has been established, two infection control staff were hired, and processes are in place to address patient concerns immediately. Since June 2006, they have received no negative comments from patients.

- Compliance with pneumonia vaccinations increased from 0% to 88%.

- Compliance with giving an antibiotic within four hours of admission to the emergency room from having no process in place to meet and measure compliance to a process in place and 100% compliance.

- An ancillary meeting with representation from each related department was established to allow staff to solve interdepartmental issues.

- Patients staying longer than 96 hours are monitored each day for site-appropriateness of care. After discharge, the hospital staff also discuss the care needs of these patients and whether the admission was appropriate, and make protocol changes as needed.

- Comments/information by case study participants related to improving quality of care include:

    - *"I wouldn't have brought my dog to that old place. It was scary. I know its just a building but perception is everything and now I think they provide quality care."*

    - *"All of our quality measures show that we are improving quality of care."*

    - *"I know they provide quality care because they take care of you or refer you on to someone who can."*

    - *"The quality of care has definitely gone up."*

## INDICATORS OF ON-GOING NEEDS/ISSUES:

- Medical and other hospital staff report advanced life support training needs due to limited opportunities to use key emergency skills and limited access to training.

- The are opportunities to improve communications between physician services and the hospital.

- Requested information on transfusion safety, dosing contrasts in radiology, and safety guidelines for CTs in children.

- Comments/information by case study participants related to improving quality of care include:

    - *"We need to continue to work towards a proactive approach to health: keeping people healthy."*

## *CONCLUSIONS*

***Using Shoshone Medical Center, Kellogg, Idaho, as a case study to determine whether the goals of the Flex Program have been advanced, indicates that extensive progress has been made. Although local health care challenges continue to exist and need to be addressed, areas where the most progress was reported include: maintaining and improving access to health care services, improving quality of care, and network development. By using the opportunities of the Flex Program, building a new hospital, making changes to hospital management, gaining the support of the community and health care providers, working with local and regional partners, and focusing on the health care needs of the community, Shoshone Medical Center has improved its performance and quality of care. On-going support is needed to further address post-CAH conversion Flex Program goals, with a particular need to address local and regional EMS issues.***

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